

Main features

- Graphical display with backlight
- Showing errors and limits by steady or flashing colours
- Fits Baumer *CombiSerie™* (80 mm)
- Hygienic design
- Option: Two configurable relay outputs
- Programmable by touch screen
- Easy and fully programmable with FlexProgrammer 9701

Applications

- Remote display fits for all 4 - 20 mA transmitter

Technical Data

Input	
Measuring range	3.5...23 mA (normal working range 4...20 mA)
Connections	2 screw terminals for power (loop) 4 screw terminals for relay outputs
Accuracy	≤ ±0.1% of input span within -10...70 °C ≤ ±0.2% of input span within -30...-10 °C / 70...80 °C
Loop voltage drop	Two levels depending on chosen backlight brightness @ 20 mA: - Low bright backlight (<40%) : Max. 4V @23 °C - High bright backlight (>40%): Max. 6.5V @23 °C
Sample time	≤ 1 second. Typical 0.3 second
Start-up time	≤ 5 second
User-configurable data	
Measuring range	4...20 mA
Error/warning indication	Individually configurable display and backlight indication in white, green or red colour, steady or flashing light. Configurable limits between 3.5 and 23 mA
Zoom on range	Minimum 2 mA of input span
Damping	0...30 seconds
Linearization table	2 to 30 points
Measuring unit (standard selectable)	°C, °F, °K bar, mbar, kPa, MPa, psi, kg/cm ² , mmHg, mH ₂ O, atm, "Hg, mHg, "H ₂ O, %, l/h, Ton, m ³ , m ³ /h, Hz, mS, mV, V, ohm, Hz, sec, %, mA, or user defined (programmable with FlexProgrammer)

User defined unit	8 x 20 pixels matrix
Dec. point position	xxxxx, xxxx.x, xxx.xx, xx.xxx, x.xxxx, .xxxxx, AUTO

Relay	
Contacts	2 solid state relays
Voltage	60 Vp
Load Current	75 mA
Max On resistance	10 Ohm
	The built in relays are not activated as standard. They can be activated at purchase or SW activation code can be purchased later.

Display	
Type	FSTN Graphically LCD
Measuring range	-9999...99999
Digit height	Max. 22 mm

EMC data	
Immunity	EN 61326
Emission	EN 61326
EMC immunity Influence	≤ ±1% of input FS

Communication	
FlexProgrammer 2-way communication for configuration.	

Test conditions	
Operating temperature	23°C ± 2 °C

Approval Ex ia IIC T4/T5, ATEX II 1G (Preliminary)	
Internal inductivity	Li < 10 µH
Internal capacity	Ci < 25 nF
Barrier data	U < 30 Vdc ; I < 0.1 A ; P < 0.75 W
Temperature class	T1...T5

Environmental conditions

Optimal readability	-10...70 °C
Operating temperature	-30...80 °C
Storage temperature	-40...85 °C
Humidity	max. 98% RH, condensing
Vibrations	According to IEC 68-2-6
Mechanical tolerances	ISO 2768-m

Mechanical data

Dimensions	See dimensional drawing
Material	Polycarbonate plastic
Enclosure	ø 80 mm housing and front ring stainless steel, AISI 304
Moulding compound	DP 460 (No silicone)
Protection class	IP 10 on terminals IP 67 in ø 80 mm housing
Weight	100 g - display alone 170 g - display incl. front ring 475 g - display in ø 80 mm housing for wall mounting

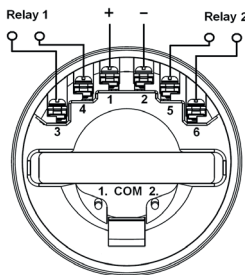
Other data

Temperature drift	≤ 0,001%/10K (inside optimal readability temperature range) ≤ 0,0015%/10K (outside optimal readability temperature range)
Power up time	≤ 15 sec.

Disposal of product and packing

According to national laws or by returning to Baumer.

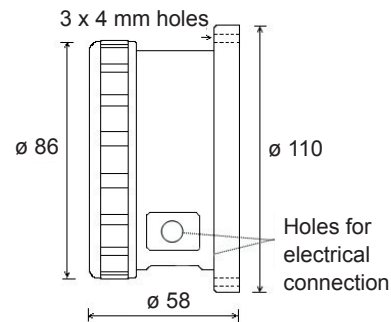
Electrical connections



- Terminal 1 - Supply +
- Terminal 2 - Supply -
- Terminal 3 - Relay 1
- Terminal 4 - Relay 1
- Terminal 5 - Relay 2
- Terminal 6 - Relay 2

Drawings / Dimensions in mm

DFON xxx11x



Selectable views



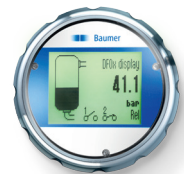
Value
Small / Large



Analog
w. Bar graph / Value



Bar graph
Vertical / horizontal



Tank illustration
Tank / Bottle

Visual alert



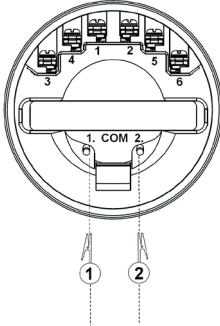
Status ok



Alert status

Programming

Connect the FlexProgrammer to the *CombiView™*, DFON as per below.



It is not necessary to disconnect the power to the *CombiView™*, DFON display

The FlexProgrammer 9701 is a dedicated tool to Configure all Baumer configurable products.



FlexProgrammer, No. : 9701.0001

The FlexProgrammer interface unit will be delivered complete including

- CD with FlexProgram software
- Product drivers (DTM-files)
- cables

The *CombiView™*, DFON can also be programmed by the touch bottoms on the display. Please see "Operating instructions for *CombiView™*, DFON".

Ordering details

	-					
Model	DFON					
<i>CombiView™</i>						
Safety						
Standard		1				
ATEX ia (pending) ⁽¹⁾		2				
ATEX tD (pending) ⁽¹⁾		3				
ATEX nA (pending) ⁽¹⁾		4				
Relays						
Not activated		1				
Activated		2				
Configuration						
None			0			
Configured according to customer specification			1			
Front ring						
None				0		
For ø 80 mm SS housing (FlexBar + <i>CombiTemp®</i>)				1		
Housing						
None					0	
ø 80 mm SS housing for wall mounting					1	
Electrical connection on housing						
None						0
1 x M16 nickel plated brass cable gland						1
2 x M16 nickel plated brass cable gland						2
1 x M16 plastic cable gland						3
2 x M16 plastic cable gland						4
Accessories, Software for relays						
Activation code for relays (for instruments with not activated relays)						DFO-SW

⁽¹⁾ ATEX approvals is pending - expected Q3-12